

WHAT IS CLAIMED IS

1. An electronic ballast control for controlling a power switch in an electronic ballast to switch power to a load, comprising:
  - a storage device for storing parameters to operate ballast control components;
  - a control device coupled to the storage device for reading parameters from the storage device and providing the parameters to ballast control components;
  - an oscillator coupled to the control device for receiving parameters from the control device and providing an oscillation signal based on the received parameters;
  - an output section coupled to the oscillator and operable to receive the oscillation signal and produce signals for operating the power switch.
2. The control according to claim 1, further comprising a minimum frequency signal applied to the oscillator to determine a minimum oscillation frequency provided by the oscillator.
3. The control according to claim 2, further comprising a passive component coupled to the oscillator to provide the minimum frequency signal.
4. The control according to claim 1, further comprising an input device coupled to the storage device for inputting data to the storage device.
5. The control according to claim 4, further comprising an input data to the input device, wherein the input device is operable to translate the input data to a format suitable for input to the storage device.

6. The control according to claim 1, wherein the control is implemented on an integrated circuit.

7. The control according to claim 1, wherein the storage device is a digital storage device.

8. The control according to claim 1, wherein the control device is a digital control device.

9. The control according to claim 1, wherein the oscillator is a digital oscillator.

10. The control according to claim 1, wherein the control device or the controller is programmable with parameters from the storage device, whereby the control is operable to obtain variable operating characteristics based on parameter programming.

11. The control according to claim 9, further comprising a DAC in the oscillator for converting an input digital signal to an analog signal, whereby the oscillation frequency is related to the analog signal.

12. A method of operating an electronic ballast, comprising:  
storing data in a storage device related to ballast control parameters;  
reading data from the storage device to obtain parameters for operating the ballast control; and

applying the parameters to ballast control components to obtain selected operating points for the components, whereby the ballast control outputs a control signal based on a selection of parameters applied to the components.

13. The method according to claim 12, wherein storing data in the storage device further comprises applying a storage input signal to an input coupled to the storage device; and

applying an enable signal to another input coupled to the storage device to enable the data signal to be accepted and stored by the storage device.

14. The method according to claim 12, wherein the data is digital data.

15. The method according to claim 14, further comprising selectively applying the digital data to the ballast control components to obtain operating set points for the ballast control.

16. The method according to claim 12, further comprising applying a minimum frequency signal to an oscillator component in the ballast control to determine a relative minimum switching frequency for the ballast control.

17. The method according to claim 12, further comprising providing a buffered voltage bias in the ballast control that is decoupled from an AC input.

18. The method according to claim 12, further comprising counting a number of events in the ballast control to determine when the number of events reach a predetermined value in a specified time period.

19. The method according to claim 12, further comprising timing one or more events to determine if a predetermined time duration is achieved for the one or more events.

20. A ballast control IC, comprising:
  - a digital memory for storing control parameters;
  - a digital controller coupled to the memory for reading parameters from the memory;
  - a digital oscillator coupled to the controller for receiving a digital oscillation set point and providing an oscillation signal based on the set point.
21. The IC according to claim 20, further comprising a digital counter for counting a number of events and providing an indication if a predetermined count is reached.
22. The IC according to claim 20, further comprising a timer in the controller for timing an event and outputting a signal if a predetermined duration of time passes related to the event.